Before the Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)
	) WC Docket No. 13-184
Modernizing the E-rate Program for	) DA 14-308
Schools and Libraries	)

Comments of the Consortium for School Networking

The Consortium for School Networking (CoSN) is the premier professional association for school district technology leaders. CoSN empowers educational leaders to leverage technology to create and grow engaging learning environments. For over two decades, CoSN has provided local education leaders with the management, community building, and other capacities essential for using technology and broadband services to transform learning for all students. Today, the CoSN community represents nine million students in school districts nationwide and continues to grow as a voice for effectively using technology to dramatically improve teaching and learning.

We are writing to respond to the Wireline Competition Bureau's request for focused comment concerning the Federal Communications Commission's (Commission) E-rate modernization rulemaking.[1] We agree with other leading education and library groups that the E-rate has been an indispensible resource for local education leaders that recognize technology's potential for creating powerful, scalable, educational opportunities for students, particularly in communities challenged by persistent and deep poverty. Given the E-rate's importance to the nation's students – and the nation's future economic prosperity and culture of creativity and innovation - we strongly support the Commission's decision to update and improve the program for the next generation of American students.

---

[1] *Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184, Notice of Proposed Rulemaking, 28 FCC Rcd 11304 (2013).

We also believe funding for the program must grow to meet the nation's educational broadband needs. With these goals in mind, CoSN encourages the Wireline Bureau to consider the following recommendations, which respond to the Bureau's request for focused comment about strategies for targeting program funds on expanding high-capacity broadband access and innovative ways to improve the program's cost effectiveness.

1. **Improve the Program's Cost Effectiveness by Strengthening the Universal Service Administrative Company's (USAC) Capacity to Support Applicants and Promote Price and Service Transparency.**

     As the Commission undertakes this important update to the E-rate, the time is right to strengthen USAC's ability to steward the program, including: (1) enabling faster processing of applications and appeals; (2) improving data collection, analysis, and reporting; and (3) partnering with education technology leaders to provide additional, high quality technical assistance.

   - *Improve Processing Times.* USAC's annual application review process is understandably challenging to manage, given the significant number of applications it receives - 45,000 in Funding Year 2013 – while also fielding 49,000 phone inquiries.[2] Many E-rate applications, however, are not granted by USAC for months – and sometimes even years in the case of complex consortia applications - after filing. Delayed decisions create significant uncertainty for applicants, including causing them to reapply for services sought in prior funding year applications, which have not yet been addressed by USAC. Applicants also experience delays with appeals and other procedural steps, which in turn delay applicant decision making and require

---

[2] *2013 Annual Report - Universal Service Administrative Company,* p. 12.

USAC to hold millions of program dollars in reserve, which might otherwise be invested in schools. Improving USAC's technology infrastructure and properly calibrating the organization's staffing could help alleviate this problem and appreciably speed the process for busy educator applicants. Therefore, we urge the Commission to conduct a careful analysis to identify and fill USAC's specific capacity gaps in order to improve the E-rate's operation and maximize the program's cost effectiveness.

- ***Improve Data Collection, Analysis, and Reporting.*** USAC presently lacks the technology, protocols, and staff needed to report effectively to applicants, telecommunications providers, policy makers, and the public about the E-rate program's investments and impact on high capacity broadband connectivity rates, and other covered services. Significantly greater programmatic analysis and transparency designed to equip applicants and other stakeholders with macro-information, such as services acquired and related pricing at community, regional, state and national levels, would dramatically improve the program's cost effectiveness and long term success. Free markets work most efficiently when information flows freely and although there are sometimes unique conditions (e.g., geography) that make price comparisons difficult; on balance providing more information to applicants and other stakeholders (including the Commission) will help the system function efficiently and have the greatest impact on students. Better and more transparent cost and other information is critically needed by school system leaders to enable wise purchasing decisions and ensure acquisition of the best prices for the services applicants receive.

Creating a more transparent evaluation and reporting process will require USAC to acquire and implement new technology, including better databases, and establish comprehensive systems of reporting, including providing outside researchers access to program data. Acquisition of these technologies, as described above, could also help improve the program's administration.

- ***Strengthen Technical Assistance, including through USAC's Helping Applicants to Succeed (HATS) program.*** Acquiring and implementing sophisticated telecommunications and technology systems can be challenging for E-rate applicants, particularly smaller schools and school districts, which often lack dedicated technology professionals. Furthermore, acquiring private technical support is not always an option in every community and thus important information about network design and other technical issues is unevenly distributed across the country. The absence of universal, high-quality technical support is particularly pronounced in the nation's poorest and most geographically isolated communities. CoSN is working to help alleviate this problem through our Smart Education Networks by Design (SEND) initiative and other efforts.[3] SEND is designed to help schools understand how to approach network design, including developing an informed estimate of the number of services needed, amount of data required, the number of users anticipated, and their access methods (wired or wireless). Thoughtfully exploring these core questions can help

---

[3] See Consortium for School Networking Website (Smart Education Networks by Design initiative): www.cosn.org/smartednetworks

schools begin basic network design. Thus, CoSN's Core SEND recommendations urge district leaders to:

- Recognize that education networks are critical components of schools' infrastructures;

- Recognize that 1-to-1 programs are quickly becoming mainstream, and plan for bandwidth capacity accordingly;

- Start network planning and upgrade processes by consulting with teachers and administrators to ensure that networks are capable of supporting peak loads (including for next generation assessments);

- Plan for substantial training and supporting teachers and staff as part of any technology rollout;

- Understand that accessing content and resources outside of the classroom is as critical to effective learning as in-class connectivity;

- Ensure that rigorous security measures are built into network designs in order to prevent unauthorized access and to comply with student data privacy protection laws; and

- Make future-focused design choices in terms of scalability and adaptability.

Other nonprofit, vendor neutral organizations across the country also have E-rate technical assistance resources, which could help applicants maximize the use of the program's resources. CoSN urges the Commission to strengthen USAC's capacity to deliver technical assistance to E-rate applicants, including through the HATS program. The Commission should establish a formal process for USAC to leverage other organization's technical

expertise. If established, an enhanced technical assistance process supported by outside entities must be more than a simple information clearinghouse. For example, USAC could establish a vetting process to identify a small number of high quality technical assistance partners and resources and develop a strategy for using the HATS model to deliver additional high-quality resources and knowledge to applicants which require assistance. This step will help maximize the cost effectiveness of E-rate funds and help minimize administrative burden on applicants. New technical assistance supports focused on technology decision making (such as network design) should supplement, not displace, USAC's important existing outreach and training initiatives, which focus on promoting understanding of general E-rate Program rules, essential program updates, revised FCC forms, eligible services, and audits.

2. **Use the $2 billion identified in the Public Notice to help Applicants acquire Affordable and Essential Internal Connections Equipment and Software, and Implement a plan for Maximizing the Investment's Reach and Impact.**

    CoSN supports the call by other leading education group to focus the existing $2 billion in E-rate resources identified by Commission staff for internal connections. *CoSN's E-rate and Broadband Survey 2013* demonstrates a clear need for this targeted investment, particularly given the near absence of priority two funding below the 90% discount level in recent years. For example, with regard to internal connections, school LAN "backbones" represent a key challenge to high capacity broadband delivery to school's learning spaces. It is disturbing that 26% of districts report using slow copper backbones, while 2.3% report using wireless for

their backbones. Evidence from the CoSN survey also suggests that schools have not yet been able to deploy sufficient access points to satisfy increasing broadband capacity demands made by new digital textbooks and other resources, sophisticated online assessments, virtual/blended learning opportunities, and bring-your-own-device and 1:1 device initiatives.[4]

Applicant demand also validates the need for this targeted internal connections investment. For example, applicant demand for internal network connections and maintenance of internal network connections support was $2.28 billion for Funding Year 2013.[5] Furthermore, USAC estimates Funding Year 2014 internal connections demand to be $2.22 billion, none of which will likely be met by the program because the estimated 2014 demand for Priority 1 services, $2.64 billion, greatly exceeds the 2014 cap of $2.41 billion.[6] And, in fact, demand is significantly undercounting need, since many districts no longer apply for Priority 2 given the lack of funding. In CoSN's survey, 37% of districts reported they would like to apply for Priority 2, but do not apply given very reasonable expectations that the program will have inadequate funding to support such services.[7]

We also urge the Commission to adopt thoughtful strategies for maximizing the reach and impact of the $2 billion set-aside. CoSN remains strongly committed to the program's traditional focus on promoting digital equity, including prioritizing funding for applicants demonstrating the greatest need. We urge the Commission to take steps to ensure that low resource applicants that lack high-capacity broadband are served first, while also ensuring the $2 billion lays a foundation leading to

[4] *CoSN's E-Rate and Broadband Survey 2013 Final Report*, p. 13.
[5] 2013 USAC Annual Report, p. 12.
[6] Universal Service Administrative Company Website, "Latest News,"Last visited on April 4, 2014. http://bit.ly/1hIEtFm
[7] CoSN Survey, p. 2.

ubiquitous high-capacity broadband access in all schools. With this overarching goal in mind, CoSN recommends – for the $2 billion set aside – requiring a modest higher match for all applicants. In addition, we encourage the Commission to focus the $2 billion on the essential equipment and software essential to delivering high-capacity broadband to all learning spaces within a school. Caching to reduce demand, ensuring better firewall processing, and removing outdated content filtering, are excellent strategies, but should be addressed through non E-rate funds, in order to maximize support for internal and last mile connections.

With regard to future priority two funding, CoSN supports setting aside an annual dedicated amount of funding for internal connections. The near absence of internal connections funding in recent years has greatly hindered the delivery of high-capacity broadband within schools nationally. Given the past shortfall of funding for this purpose, and the educational importance of swiftly achieving ubiquitous high capacity broadband within the nation's schools, we see this long term policy change as critically important. The Commission should also transition to a one-in-five rule, which is consistent with the typical five year upgrade cycle in many school districts. These steps, so long as they are coupled with increasing the program's cap and other efficiency strategies, will help ensure national build-out of high-capacity broadband at scale, on a reasonable timeline.

CoSN also supports the Commission's recommendation to focus the E-rate program over the long term on high-capacity broadband connectivity to and within schools, including reducing or eliminating support for voice services. Any reduction to voice services, however, must be phased-in over a significant period of time in order to enable school districts to adjust their budgets. The E-rate's support for

voice services has been incredibly valuable to applicants since the program's inception, but given the importance of high-capacity broadband to the future of the nation's educational system and the country's international economic competitiveness; we believe this policy change is timely and appropriate.

3. **Establish a Formal Process for Evaluating the Estimated Funding required to connect all Students to High-capacity Broadband and Raise the Cap Accordingly.**

Refocusing the program to address the nation's high-capacity educational broadband gap and making administrative improvements to the program is laudable and important. Absent additional funding, however, the program will simply not succeed in connecting all students to high-capacity broadband services at school.   As described above, annual applicant demand significantly exceeds available E-rate funding and the actual need is likely much greater. Applicants sought nearly $5 billion in E-rate Program funds Funding Year 2013.[8] This trend will undoubtedly continue (the estimated demand for Funding Year 2014 is $4.86 billion).[9]

Given this clear and sustained shortfall, CoSN strongly urges the Commission to establish a process for developing a reliable estimate of the cost of ensuring that every learning space in the nation's schools is connected to high-capacity broadband service. The Commission must then act swiftly to raise the cap to a level large enough to help every school district achieve the high capacity broadband connectivity levels recommend by the State Educational Technology Directors Association over the next five years. A sound Commission estimate, would also

---

[8] 2013 USAC Annual Report 2013, p. 12.
[9] Universal Service Administrative Company Website, "Latest News," Last visited on April 4, 2014. http://bit.ly/1hIEtFm

serve as initial roadmap for state and local decision makers to determine the

amount of funding they will need to invest concurrent with the E-rate's investments

to ensure their systems provide sufficient broadband capacity to students. Given

the incredible challenges facing our country, and the major education reforms

underway in every state that depend on robust broadband access, this is not a time

to be timid about investing in critically needed education technology infrastructure.

Respectfully submitted,

Consortium for School Networking (CoSN)

/s/ Keith Krueger
Chief Executive Officer

1025 Vermont Avenue, NW, Suite 1010
Washington, D.C. 20005-3599
(202) 861-2676

April 7, 2014